

10/085944

L1 FILE 'REGISTRY' ENTERED AT 12:00:44 ON 21 JAN 2005
219 S AATATGCTGAAACGCGAGAGAAACGCG/SQSN

L2 FILE 'CAPLUS' ENTERED AT 12:01:50 ON 21 JAN 2005
41 S L1

L4 8 SEA ABB=ON PLU=ON L2 AND ((BREAKBONE OR BREAK BONE) (W) FEVER
OR DENGUE) (W) VIRUS) (S) (DETERM? OR DETECT? OR DET## OR SCREEN?
OR DIAGNOS?)

L4 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 29 Oct 2004

ACCESSION NUMBER: 2004:905931 CAPLUS

DOCUMENT NUMBER: 141:389790

TITLE: Molecular detection of Japanese encephalitis virus and
other flaviviruses

INVENTOR(S): Young, Karen K. Y.

PATENT ASSIGNEE(S): Roche Diagnostics G.m.b.H., Germany; F.Hoffmann-La
Roche A.-G.

SOURCE: PCT Int. Appl., 143 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|-----------------|------------|
| WO 2004092412 | A2 | 20041028 | WO 2004-EP3356 | 20040330 |
| <p>W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW</p> <p>RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG</p> | | | | |
| US 2004229261 | A1 | 20041118 | US 2004-815480 | 20040331 |
| PRIORITY APPLN. INFO.: | | | US 2003-459491P | P 20030331 |
| | | | US 2004-552454P | P 20040312 |
| | | | US 2004-555530P | P 20040322 |

AB The current invention provide methods for detection of Japanese
encephalitis virus and other flaviviruses. The primers and probes are
used for amplification or hybridization to the 3'-untranslated region of
viral genomes. Oligonucleotide primers, probes and kits for
diagnosis of flaviviruses, including Japanese encephalitis virus
serogroup, **Dengue virus**, St. Louis encephalitis virus,
Montana myotis leukoencephalitis virus, Modoc virus, and Yellow Fever
virus are provided.

IT 140974-98-7, GENBANK M29095 140974-99-8, GENBANK M20558
140975-00-4, GENBANK M19197 140975-01-5, GENBANK M14931
140993-81-3, GENBANK M84728 140994-01-0, GENBANK M84727
201718-01-6, GENBANK AF038402 201718-02-7, GENBANK

10/085944

AF038403 204661-07-4, GENBANK AF022434 204661-08-5,
GENBANK AF022435 204661-09-6, GENBANK AF022436
204661-10-9, GENBANK AF022437 204661-11-0, GENBANK
AF022438 204661-12-1, GENBANK AF022439 204661-13-2,
GENBANK AF022440 204661-14-3, GENBANK AF022441
225438-49-3, GENBANK AF119661 225734-74-7, GENBANK
AF100459 225734-75-8, GENBANK AF100460 225734-76-9,
GENBANK AF100461 225734-77-0, GENBANK AF100462
225734-78-1, GENBANK AF100463 225734-79-2, GENBANK
AF100464 225734-81-6, GENBANK AF100467 225734-82-7,
GENBANK AF100468 225734-83-8, GENBANK AF100469
251337-85-6, GENBANK AF204177 251337-86-7, GENBANK
AF204178 254720-80-4, GENBANK AF169678 254720-81-5,
GENBANK AF169679 254720-82-6, GENBANK AF169680
254720-83-7, GENBANK AF169681 254720-84-8, GENBANK
AF169682 254720-85-9, GENBANK AF169683 254720-86-0,
GENBANK AF169684 254720-87-1, GENBANK AF169685
254720-88-2, GENBANK AF169686 254720-89-3, GENBANK
AF169687 254720-90-6, GENBANK AF169688 279211-55-1,
GENBANK AF276619 302089-59-4, GENBANK AF289029
302314-24-5, GENBANK AF208496 312903-87-0, GENBANK
AF326825 312903-88-1, GENBANK AF326826 312903-89-2,
GENBANK AF326827 320564-20-3, GENBANK AF326573
335565-24-7, GENBANK AF359579 339951-56-3, GENBANK
AF375822 344693-93-2, GENBANK AY037116 384754-00-1,
GENBANK U87411 384754-02-3, GENBANK U87412 385656-23-5
, GENBANK AF100465 385656-24-6, GENBANK AF100466
415532-97-7, GENBANK AF489932 635266-56-7, GENBANK
AJ487271

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
(Biological study)
(mol. detection of Japanese encephalitis virus and other flaviviruses)

L4 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 15 Jun 2004
ACCESSION NUMBER: 2004:481776 CAPLUS
DOCUMENT NUMBER: 141:52839
TITLE: Recombinant envelope protein dimers for vaccination
against dengue virus infection
INVENTOR(S): Peters, Iain D.; Collier, Beth-ann G.; McDonnell,
Michael; Ivy, John M.; Harada, Kent
PATENT ASSIGNEE(S): Hawaii Biotechnology Group, Inc., USA
SOURCE: U.S., 47 pp., Cont.-in-part of U.S. Ser. No. -904,227,
abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|-------------|
| US 6749857 | B1 | 20040615 | US 1999-376463 | 19990818 |
| US 2003175304 | A1 | 20030918 | US 2002-247960 | 20020920 |
| PRIORITY APPLN. INFO.: | | | US 1997-904227 | B2 19970731 |
| | | | US 1999-376463 | A1 19990818 |

Searcher : Shears 571-272-2528

10/085944

AB The present invention discloses and claims vaccines containing a secreted recombinantly produced dimeric form of truncated flaviviral envelope (E) protein. The vaccines are capable of eliciting the production of neutralizing antibodies against flaviviruses. The dimeric forms of truncated flaviviral envelope protein are formed (1) by directly linking two tandem copies of 80% E in a head to tail fashion via a flexible tether; (2) via the formation of a leucine zipper domain through the homodimeric association of two leucine zipper helixes each fused to the C-terminus of an 80% E mol.; or (3) via the formation of a non-covalently associated four-helix bundle domain formed upon association of two helix-turn-helix moieties each attached to the C-terminus of an 80% E mol. All products are expressed as a polyprotein including prM and the modified 80% E products are secreted from *Drosophila melanogaster* Schneider 2 cells using the human tissue plasminogen activator secretion signal sequence (tPAL). One embodiment of the present invention is directed to a vaccine for protection of a subject against infection by dengue virus.

IT 705004-60-0, 2: PN: US6749857 SEQID: 2 unclaimed DNA

RL: PRP (Properties)

(unclaimed nucleotide sequence; recombinant envelope protein dimers for vaccination against dengue virus infection)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN

ED Entered STN: 14 May 2004

ACCESSION NUMBER: 2004:392667 CAPLUS

DOCUMENT NUMBER: 140:402866

TITLE: Immunoassays for **diagnosis** of flavivirus infection and identification of West Nile virus and **Dengue virus**

INVENTOR(S): Wong, Susan J.; Pei-yong, Shi

PATENT ASSIGNEE(S): Health Research, Inc., USA

SOURCE: PCT Int. Appl., 212 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|--|----------|-----------------|------------|
| WO 2004040263 | A2 | 20040513 | WO 2003-US34823 | 20031031 |
| W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW | | | |
| RW: | BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | |
| PRIORITY APPLN. INFO.: | | | US 2002-422755P | P 20021031 |
| | | | US 2003-476513P | P 20030606 |

AB The present invention provides a rapid and sensitive method for the

Searcher : Shears 571-272-2528

detection of a West Nile virus (WNV), Japanese encephalitis virus (JEV), St. Louis encephalitis virus (SLEV) and **Dengue virus** (DENV) and antibodies directed against thereof involving contacting a biol. specimen suspected of being infected with WNV, JE, SLE or DEN with a substantially purified and isolated WNV E glycoprotein or subfragment thereof having a native conformation wherein the E glycoprotein or subfragment thereof has a reactivity with antibodies against JEV, SLEV and DENV. The invention further provides a rapid, sensitive, and consistent method for the specific detection of WNV by employing diagnostic assays having the antigen NS5 which is specifically reactive with anti-WNV antibodies but not cross-reactive with antibodies but not cross-reactive with antibodies against other flaviviruses such as JEV, SLEV, or DENV. The invention also provides a rapid, sensitive, and consistent method for the specific detection of DENV by employing diagnostic assays having the antigen NS5 which is specifically reactive with anti-DENV antibodies but do not cross-react with antibodies against other flaviviruses such as JEV, SLEV, or WNV. Further, the DENV NS5 antigens are serospecific and do not cross react with antibodies to other DENV strains. Thus, the method of the present invention provides a manner by which to discriminate infections by each DENV strain. Further, diagnostic kits for carrying out the methods are provided. The methods and kits for carrying out the methods of the invention are rapid and require as little as 10 min to detect a result.

IT 201718-02-7, GenBank AF038403

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(immunoassays for **diagnosis** of flavivirus infection and identification of West Nile virus and **Dengue virus**)

IT 688868-34-0

RL: PRP (Properties)

(unclaimed sequence; immunoassays for **diagnosis** of flavivirus infection and identification of West Nile virus and **Dengue virus**)

L4 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN

ED Entered STN: 25 Oct 2002

ACCESSION NUMBER: 2002:814727 CAPLUS

DOCUMENT NUMBER: 137:334002

TITLE: Methods and kits for **detection** of **dengue virus**

INVENTOR(S): Wang, Wei-Kung

PATENT ASSIGNEE(S): Taiwan

SOURCE: U.S. Pat. Appl. Publ., 6 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|------------|
| US 2002155435 | A1 | 20021024 | US 2002-85944 | 20020228 |
| PRIORITY APPLN. INFO.: | | | US 2001-272535P | P 20010301 |

AB The present invention relates to a pair of **dengue virus**-specific primers for use in a reverse transcriptase-polymerase chain reaction to **detect dengue virus**.

IT 473845-44-2

RL: ARG (Analytical reagent use); DGN (Diagnostic use); PRP (Properties); ANST (Analytical study); BIOL (Biological study); USES (Uses)

(primer sequence; methods and kits for detection of dengue virus)

L4 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN

ED Entered STN: 09 Jul 2001

ACCESSION NUMBER: 2001:492120 CAPLUS

DOCUMENT NUMBER: 136:242490

TITLE: Genomic sequence determination of a new dengue 2 virus Fujian strain

AUTHOR(S): Geng, Liqing; Qin, Ede; Zhao, Wei; Hu, Zhijun; Yuan, Xitong; Yu, Man; Li, Xiaoyu; Yang, Peiying

CORPORATE SOURCE: Institute of Microbiology and Epidemiology, Academy of Military Medical Sciences, Beijing, 100071, Peop. Rep. China

SOURCE: Zhonghua Weishengwuxue He Mianyixue Zazhi (2001), 21(3), 330-333

CODEN: ZWMZDP; ISSN: 0254-5101

PUBLISHER: Weishenbu Beijing Shengwu Zhipin Yanjiuso

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

AB The complete genomic sequence of a new dengue virus 2 FJ-10 strain isolated from a patient with dengue fever in Fujian province in 1999 was studied. The cDNA of FJ-10 strain was amplified by RT-PCR and 5'/3' RACE methods, then cloned and sequenced. The phylogenetic tree was produced by Clustal method of DNASTAR software. The complete genome k of FJ-10 strain was composed of 10723 nucleotides, including a single open reading frame (ORF, 97-10269 nt), encoding 3391 amino acids. The lengths of 5' and 3' uncoding regions were 96 and 454 nucleotides, resp. Compared with the standard dengue virus 2 (NGC strain) and three dengue virus 2 (strains 04, 43 and 44) isolates from other regions of China, the nucleotide sequence homol. were 94.0%, 92.8%, 93.9%, 93.9% and the amino acid sequence homol. were 97.95%, 97.2%, 97.7%, 97.9% resp. A phylogenetic tree was produced by comparing E/NS1 gene junction of 47 strains of dengue virus 2. Anal. results showed that FJ-10 strain was closely related to Indonesia and Sri Lanka strains and fell into genotype IV. The complete genomic sequence of FJ-10 strain is similar to that of the other dengue virus 2, but the genotype of FJ-10 strain is different from that of dengue virus 2 strains 04, 43 and 44 isolated from other regions of China.

IT 279211-55-1, GenBank AF276619

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(nucleotide sequence; genomic sequence determination of a new dengue 2 virus Fujian strain)

L4 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN

ED Entered STN: 16 Mar 2001

ACCESSION NUMBER: 2001:180193 CAPLUS

DOCUMENT NUMBER: 135:41632

TITLE: Sequence determination and analysis of the 5' and 3' terminal regions of two dengue type 2 virus strains isolated in China

AUTHOR(S): Zhao, Wei; Song, Hai-feng; Yang, Jing; Hu, Zhi-jun;

CORPORATE SOURCE: Yang, Pei-ying; Qin, E-de; Yu, Man
 Inst. of Microbiol. & Epidemiol., Acad. of Military
 Med. Sciences, Beijing, 100071, Peop. Rep. China
 SOURCE: Zhongguo Shengwu Huaxue Yu Fenzi Shengwu Xuebao
 (2001), 17(1), 46-50
 CODEN: ZSHXF2; ISSN: 1007-7626
 PUBLISHER: Zhongguo Shengwu Huaxue Yu Fenzi Shengwu Xuebao
 Bianweihui
 DOCUMENT TYPE: Journal
 LANGUAGE: Chinese

AB The 5' and 3' terminal and 3' terminal sequences were determined in order to analyze the relationship between secondary structures and virulence of two dengue type 2 virus strains whose neurovirulence in suckling mice was different. Total RNA was isolated from C6/36 cells infected by D2-04 and brains of suckling mice infected by D2-44. With this RNA as template, the cDNAs of both 5' and 3' termini of D2-04 and D2-44 were amplified using RACE methods, resp. The cDNAs were inserted into pGEM-T vector and then the nucleotide sequences of the cDNA fragments inserted were determined. The secondary structures of 5' and 3' termini of D2-04 were predicted with RNA draw. The 5' and 3' untranslated regions of D2-04 and D2-44 were 96 and 454 bases in length, resp. A C to T change of 5'UTR that distinguished D2-04 from D2-44 at position 59 was predicted to change secondary structures. 15 nucleotides of 3'UTR were different between D2-04 and D2-44. T to A(355) and T to G(326) that lay in CS1 and CS2A of 3'UTR were predicted to change secondary structures. The three sites may be relevant to virulence of dengue virus.

IT 225438-49-3, RNA (Dengue virus 2 strain D2-04)

251337-85-6, RNA (Dengue virus 2 strain D2-44)

RL: PRP (Properties)

(nucleotide sequence; sequence **determination** and anal. of 5' and 3' terminal regions of two dengue type 2 virus strains isolated in China)

L4 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN

ED Entered STN: 19 Feb 1999

ACCESSION NUMBER: 1999:113572 CAPLUS

DOCUMENT NUMBER: 130:181470

TITLE: Recombinant dimeric envelope vaccine against
 flaviviral infection

INVENTOR(S): Ivy, John M.; Peters, Iain D.; Collier, Beth-Ann G.;
 McDonnell, Michael; Harada, Kent E.

PATENT ASSIGNEE(S): Hawaii Biotechnology Group, Inc., USA

SOURCE: PCT Int. Appl., 60 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|--|----------|-----------------|----------|
| WO 9906068 | A2 | 19990211 | WO 1998-US15447 | 19980727 |
| WO 9906068 | A3 | 19990514 | | |
| W: | AL, AM, AU, BB, BG, BR, CA, CN, CU, CZ, EE, FI, GE, GH, GM, HR, HU, ID, IL, IS, JP, KG, KP, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | |

10/085944

RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

AU 9885905 A1 19990222 AU 1998-85905 19980727
AU 752191 B2 20020912
EP 1005363 A2 20000607 EP 1998-937117 19980727
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI

BR 9815551 A 20001031 BR 1998-15551 19980727
JP 2001511459 T2 20010814 JP 2000-504879 19980727
PRIORITY APPLN. INFO.: US 1997-904227 A 19970731
WO 1998-US15447 W 19980727

AB The present invention discloses and claims vaccines containing, as an active ingredient, a secreted recombinantly produced dimeric form of truncated flaviviral envelope protein. The vaccines are capable of eliciting the production of neutralizing antibodies against flaviviruses. The dimeric forms of truncated flaviviral envelope protein are formed (1) by directly linking two tandem copies of 80 % E in a head to tail fashion via a flexible tether; (2) via the formation of a leucine zipper domain through the homodimeric association of two leucine zipper helixes each fused to the carboxy terminus of an 80 % E mol.; or (3) via the formation of a non-covalently associated four-helix bundle domain formed upon association of two helix-turn-helix moieties each attached to the carboxy terminus of an 80 % E mol. All products are expressed as a polyprotein including prM and the modified 80 % E products are secreted from *Drosophila melanogaster* Schneider 2 cells using the human tissue plasminogen activator secretion signal sequence (tPAL). Secreted products are generally more easily purified than those expressed intracellularly, facilitating vaccine production

One embodiment of the present invention is directed to a vaccine for protection of a subject against infection by dengue virus. The vaccine contains, as active ingredient, the dimeric form of truncated envelope protein of a dengue virus serotype. The dimeric truncated E is secreted as a recombinantly produced protein from eucaryotic cells. The vaccine may further contain portions of addnl. dengue virus serotype dimeric E proteins similarly produced. Another embodiment of the present invention is directed to methods to utilize the dimeric form of the truncated dengue envelope protein for diagnosis of infection in individuals at risk for the disease. The **diagnostic** contains, as active ingredient, the dimeric form of truncated envelope protein of a **dengue virus** serotype. The dimeric truncated E is secreted as a recombinantly produced protein from eucaryotic cells. The **diagnostic** may further contain portions of addnl. **dengue virus** serotype dimeric E proteins similarly produced.

IT 220602-29-9
RL: PRP (Properties)
(nucleotide sequence; recombinant dimeric envelope vaccine against flaviviral infection)

L4 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 19 Mar 1998
ACCESSION NUMBER: 1998:162711 CAPLUS
DOCUMENT NUMBER: 128:279404
TITLE: Identification of a major **determinant** of

Searcher : Shears 571-272-2528

10/085944

mouse neurovirulence of **dengue virus**
type 2 using stably cloned genomic-length cDNA
AUTHOR(S): Gualano, Rosa C.; Pryor, Melinda J.; Cauchi, Mark R.;
Wright, Peter J.; Davidson, Andrew D.
CORPORATE SOURCE: Department of Microbiology, Monash University,
Clayton, 3168, Australia
SOURCE: Journal of General Virology (1998), 79(3), 437-446
CODEN: JGVIAY; ISSN: 0022-1317
PUBLISHER: Society for General Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A genomic-length cDNA clone corresponding to the RNA of dengue virus type 2 (DEN-2) New Guinea C strain (NGC) was constructed in a low copy number vector. The cloned cDNA was stably propagated in Escherichia coli and designated pDVWS501. RNA transcripts produced in vitro from the cDNA using T7 RNA polymerase yielded infectious virus (MON501) upon electroporation into BHK-21 cells. When compared with parental NGC virus, MON501 replicated to similar levels in Aedes albopictus C6/36 cells and showed similar neurovirulence in suckling mice. In contrast, a second genomic-length cDNA clone (pDVWS310) used as an intermediate in the construction of pDVWS501 produced virus (MON310) that replicated well in C6/36 cells but was not neurovirulent in mice. MON310 contained the prM and E genes of the non-neurovirulent PUO-218 strain in an NGC background. There were seven amino acid differences between the prM and E proteins of MON310 and MON501. The differences were generally conservative, with the exception of E residue 126, which was Glu in MON310 and Lys in MON501. To examine the role of this residue in mouse neurovirulence, substitutions of Glu → Lys and Lys → Glu were made in MON310 and MON501, resp. The properties of these mutants clearly demonstrated that Lys at E residue 126 is a major determinant of DEN-2 mouse neurovirulence.

IT 201718-02-7, GenBank AF038403
RL: ADV (Adverse effect, including toxicity); PRP (Properties); BIOL (Biological study)
(nucleotide sequence; identification of a major **determinant** of mouse neurovirulence of **dengue virus** type 2 using stably cloned genomic-length cDNA)

IT 201718-01-6, GenBank AF038402
RL: ADV (Adverse effect, including toxicity); PRP (Properties); BIOL (Biological study)
(nucleotide sequence; major **determinant** of mouse neurovirulence of **dengue virus** 2 using stably cloned genomic-length cDNA)

REFERENCE COUNT: 49 THERE ARE 49 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

E1 THROUGH E59 ASSIGNED

FILE 'REGISTRY' ENTERED AT 12:06:15 ON 21 JAN 2005
L5 59 SEA FILE=REGISTRY ABB=ON PLU=ON (201718-02-7/BI OR 201718-01-6/BI OR 225438-49-3/BI OR 251337-85-6/BI OR 279211-55-1/BI OR 140974-98-7/BI OR 140974-99-8/BI OR 140975-00-4/BI OR 140975-01-5/BI OR 140993-81-3/BI OR 140994-01-0/BI OR 204661-07-4/BI OR 204661-08-5/BI OR 204661-09-6/BI OR 204661-10-9/BI OR 204661-11-0/BI OR 204661-12-1/BI OR 204661-13-2/BI OR 204661-14-3/BI OR 220602-29-9/BI OR 225734-74-7/BI OR 225734-75-8/BI OR 225734-76-9/BI OR 225734-77-0/BI OR 225734-78-1/BI OR 225734-79-2/BI OR

Searcher : Shears 571-272-2528

10/085944

225734-81-6/BI OR 225734-82-7/BI OR 225734-83-8/BI OR 251337-86-7/BI OR 254720-80-4/BI OR 254720-81-5/BI OR 254720-82-6/BI OR 254720-83-7/BI OR 254720-84-8/BI OR 254720-85-9/BI OR 254720-86-0/BI OR 254720-87-1/BI OR 254720-88-2/BI OR 254720-89-3/BI OR 254720-90-6/BI OR 302089-59-4/BI OR 302314-24-5/BI OR 312903-87-0/BI OR 312903-88-1/BI OR 312903-89-2/BI OR 320564-20-3/BI OR 335565-24-7/BI OR 339951-56-3/BI OR 344693-93-2/BI OR 384754-00-1/BI OR 384754-02-3/BI OR 385656-23-5/BI OR 385656-24-6/BI OR 415532-97-7/BI OR 473845-44-2/BI OR 635266-56-7/BI OR 688868-34-0/BI OR 705004-60-0/BI)

L5 ANSWER 1 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
RN 705004-60-0 REGISTRY
CN 2: PN: US6749857 SEQID: 2 unclaimed DNA (9CI) (CA INDEX NAME)
SQL 3381
MF Unspecified
CI MAN

REFERENCE 1: 141:52839

L5 ANSWER 2 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
RN 688868-34-0 REGISTRY
CN 11: PN: WO2004040263 FIGURE: 40 unclaimed sequence (9CI) (CA INDEX NAME)
SQL 10724
MF Unspecified
CI MAN

REFERENCE 1: 140:402866

L5 ANSWER 3 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
RN 635266-56-7 REGISTRY
CN GenBank AJ487271 (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 190: PN: WO2004092412 FIGURE: 3 claimed DNA
SQL 10597
MF Unspecified
CI MAN

REFERENCE 1: 141:389790

L5 ANSWER 4 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
RN 473845-44-2 REGISTRY
CN DNA, d(A-A-T-A-T-G-C-T-G-A-A-A-C-G-C-G-A-G-A-G-A-A-A-C-C-G-C-G) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 2: PN: US20020155435 PAGE: 1 claimed sequence
SQL 28
MF Unspecified
CI MAN

REFERENCE 1: 137:334002

L5 ANSWER 5 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
RN 415532-97-7 REGISTRY
CN RNA (dengue virus 2 strain BR64022) (9CI) (CA INDEX NAME)
OTHER NAMES:

Searcher : Shears 571-272-2528

10/085944

CN 189: PN: WO2004092412 FIGURE: 3 claimed DNA
CN GenBank AF489932
SQL 10722
MF Unspecified
CI MAN

REFERENCE 1: 141:389790

REFERENCE 2: 138:232635

L5 ANSWER 6 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
RN 385656-24-6 REGISTRY
CN GenBank AF100466 (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 152: PN: WO2004092412 FIGURE: 3 claimed DNA
SQL 10682
MF Unspecified
CI MAN

REFERENCE 1: 141:389790

L5 ANSWER 7 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
RN 385656-23-5 REGISTRY
CN GenBank AF100465 (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 151: PN: WO2004092412 FIGURE: 3 claimed DNA
SQL 10674
MF Unspecified
CI MAN

REFERENCE 1: 141:389790

L5 ANSWER 8 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
RN 384754-02-3 REGISTRY
CN GenBank U87412 (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 202: PN: WO2004092412 FIGURE: 3 claimed DNA
SQL 10723
MF Unspecified
CI MAN

REFERENCE 1: 141:389790

L5 ANSWER 9 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
RN 384754-00-1 REGISTRY
CN GenBank U87411 (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 201: PN: WO2004092412 FIGURE: 3 claimed DNA
CN 43: PN: WO2004097017 PAGE: 43 unclaimed DNA
SQL 10723
MF Unspecified
CI MAN

REFERENCE 1: 141:406726

REFERENCE 2: 141:389790

L5 ANSWER 10 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
RN 344693-93-2 REGISTRY
CN GenBank AY037116 (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 191: PN: WO2004092412 FIGURE: 3 claimed DNA
CN 3: PN: WO2004035765 TABLE: 1 unclaimed DNA
CN 41: PN: WO2004097017 PAGE: 43 unclaimed DNA
CN 4: PN: WO2004011624 TABLE: 1 unclaimed DNA
SQL 10723
MF Unspecified
CI MAN

REFERENCE 1: 141:406726

REFERENCE 2: 141:389790

REFERENCE 3: 140:369914

REFERENCE 4: 140:158524

L5 ANSWER 11 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
RN 339951-56-3 REGISTRY
CN RNA (dengue virus 4 clone 2A) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 222: PN: WO2004092412 FIGURE: 3 claimed DNA
CN GenBank AF375822
SQL 10649
MF Unspecified
CI MAN

REFERENCE 1: 141:389790

REFERENCE 2: 136:65013

L5 ANSWER 12 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
RN 335565-24-7 REGISTRY
CN RNA (Dengue virus 2 strain FJ11/99) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 188: PN: WO2004092412 FIGURE: 3 claimed DNA
CN GenBank AF359579
SQL 10723
MF Unspecified
CI MAN

REFERENCE 1: 141:389790

REFERENCE 2: 138:334219

L5 ANSWER 13 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
RN 320564-20-3 REGISTRY
CN GenBank AF326573 (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 1: PN: WO02095075 PAGE: 30 unclaimed DNA
CN 218: PN: WO2004092412 FIGURE: 3 claimed DNA
CN 4: PN: WO03059384 PAGE: 19 unclaimed DNA

10/085944

SQL 10649
MF Unspecified
CI MAN

REFERENCE 1: 141:389790

REFERENCE 2: 139:116271

REFERENCE 3: 138:2186

L5 ANSWER 14 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
RN 312903-89-2 REGISTRY
CN GenBank AF326827 (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 1: PN: WO02095075 PAGE: 30 unclaimed DNA
CN 221: PN: WO2004092412 FIGURE: 3 claimed DNA
SQL 10618
MF Unspecified
CI MAN

REFERENCE 1: 141:389790

REFERENCE 2: 138:2186

L5 ANSWER 15 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
RN 312903-88-1 REGISTRY
CN GenBank AF326826 (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 1: PN: WO02095075 PAGE: 30 unclaimed DNA
CN 220: PN: WO2004092412 FIGURE: 3 claimed DNA
SQL 10618
MF Unspecified
CI MAN

REFERENCE 1: 141:389790

REFERENCE 2: 138:2186

L5 ANSWER 16 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
RN 312903-87-0 REGISTRY
CN GenBank AF326825 (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 1: PN: WO02095075 PAGE: 5 unclaimed DNA
CN 219: PN: WO2004092412 FIGURE: 3 claimed DNA
CN 2: PN: WO03059384 PAGE: 6 unclaimed DNA
CN 2: PN: WO03092592 PAGE: 6 unclaimed DNA
SQL 10649
MF Unspecified
CI MAN

REFERENCE 1: 141:389790

REFERENCE 2: 139:379993

REFERENCE 3: 139:116271

REFERENCE 4: 138:2186

L5 ANSWER 17 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
RN 302314-24-5 REGISTRY
CN RNA (Dengue virus 2 strain DEN2/H/IMTSSA-MART/98-703) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 170: PN: WO2004092412 FIGURE: 3 claimed DNA
CN GenBank AF208496
SQL 10722
MF Unspecified
CI MAN

REFERENCE 1: 141:389790

REFERENCE 2: 134:336552

L5 ANSWER 18 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
RN 302089-59-4 REGISTRY
CN RNA (dengue virus 4 strain B5) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 214: PN: WO2004092412 FIGURE: 3 claimed DNA
CN GenBank AF289029
SQL 10665
MF Unspecified
CI MAN

REFERENCE 1: 141:389790

REFERENCE 2: 141:223993

REFERENCE 3: 136:80602

L5 ANSWER 19 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
RN 279211-55-1 REGISTRY
CN DNA (dengue virus type 2 strain FJ-10) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 171: PN: WO2004092412 FIGURE: 3 claimed DNA
CN DNA (dengue virus type 2 strain FJ-10 genome cDNA)
CN GenBank AF276619
SQL 10723
MF Unspecified
CI MAN

REFERENCE 1: 141:389790

REFERENCE 2: 136:242490

L5 ANSWER 20 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
RN 254720-90-6 REGISTRY
CN RNA (Dengue virus 2 strain ThNH81/93) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 159: PN: WO2004092412 FIGURE: 3 claimed DNA
CN GenBank AF169688
SQL 10723
MF Unspecified

CI MAN

REFERENCE 1: 141:389790

REFERENCE 2: 133:40316

L5 ANSWER 21 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
RN 254720-89-3 REGISTRY
CN RNA (Dengue virus 2 strain ThNH76/93) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 157: PN: WO2004092412 FIGURE: 3 claimed DNA
CN GenBank AF169687
SQL 10723
MF Unspecified
CI MAN

REFERENCE 1: 141:389790

REFERENCE 2: 133:40316

L5 ANSWER 22 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
RN 254720-88-2 REGISTRY
CN RNA (Dengue virus 2 strain ThNH73/93) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 167: PN: WO2004092412 FIGURE: 3 claimed DNA
CN GenBank AF169686
SQL 10723
MF Unspecified
CI MAN

REFERENCE 1: 141:389790

REFERENCE 2: 133:40316

L5 ANSWER 23 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
RN 254720-87-1 REGISTRY
CN RNA (Dengue virus 2 strain ThNH69/93) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 166: PN: WO2004092412 FIGURE: 3 claimed DNA
CN GenBank AF169685
SQL 10723
MF Unspecified
CI MAN

REFERENCE 1: 141:389790

REFERENCE 2: 133:40316

L5 ANSWER 24 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
RN 254720-86-0 REGISTRY
CN RNA (Dengue virus 2 strain ThNH63/93) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 165: PN: WO2004092412 FIGURE: 3 claimed DNA
CN GenBank AF169684
SQL 10723
MF Unspecified

CI MAN

REFERENCE 1: 141:389790

REFERENCE 2: 133:40316

L5 ANSWER 25 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
RN 254720-85-9 REGISTRY
CN RNA (Dengue virus 2 strain ThNH62/93) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 164: PN: WO2004092412 FIGURE: 3 claimed DNA
CN GenBank AF169683
SQL 10723
MF Unspecified
CI MAN

REFERENCE 1: 141:389790

REFERENCE 2: 133:40316

L5 ANSWER 26 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
RN 254720-84-8 REGISTRY
CN RNA (Dengue virus 2 strain ThNH54/93) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 163: PN: WO2004092412 FIGURE: 3 claimed DNA
CN GenBank AF169682
SQL 10723
MF Unspecified
CI MAN

REFERENCE 1: 141:389790

REFERENCE 2: 133:40316

L5 ANSWER 27 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
RN 254720-83-7 REGISTRY
CN RNA (Dengue virus 2 strain ThNH55/93) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 162: PN: WO2004092412 FIGURE: 3 claimed DNA
CN GenBank AF169681
SQL 10723
MF Unspecified
CI MAN

REFERENCE 1: 141:389790

REFERENCE 2: 133:40316

L5 ANSWER 28 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
RN 254720-82-6 REGISTRY
CN RNA (Dengue virus 2 strain ThNH45/93) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 161: PN: WO2004092412 FIGURE: 3 claimed DNA
CN GenBank AF169680
SQL 10723
MF Unspecified

CI MAN

REFERENCE 1: 141:389790

REFERENCE 2: 133:40316

L5 ANSWER 29 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
RN 254720-81-5 REGISTRY
CN RNA (Dengue virus 2 strain ThNH36/93) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 160: PN: WO2004092412 FIGURE: 3 claimed DNA
CN GenBank AF169679
SQL 10723
MF Unspecified
CI MAN

REFERENCE 1: 141:389790

REFERENCE 2: 133:40316

L5 ANSWER 30 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
RN 254720-80-4 REGISTRY
CN RNA (Dengue virus 2 strain ThNH29/93) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 158: PN: WO2004092412 FIGURE: 3 claimed DNA
CN GenBank AF169678
SQL 10723
MF Unspecified
CI MAN

REFERENCE 1: 141:389790

REFERENCE 2: 133:40316

L5 ANSWER 31 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
RN 251337-86-7 REGISTRY
CN RNA (Dengue virus type 2 strain 43 polyprotein gene plus flanks) (9CI)
(CA INDEX NAME)
OTHER NAMES:
CN 169: PN: WO2004092412 FIGURE: 3 claimed DNA
CN GenBank AF204178
SQL 10723
MF Unspecified
CI MAN

REFERENCE 1: 141:389790

REFERENCE 2: 138:50522

L5 ANSWER 32 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
RN 251337-85-6 REGISTRY
CN RNA (Dengue virus 2 strain D2-44) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 168: PN: WO2004092412 FIGURE: 3 claimed DNA
CN GenBank AF204177
SQL 10723

MF Unspecified
CI MAN

REFERENCE 1: 141:389790

REFERENCE 2: 135:41632

L5 ANSWER 33 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
RN 225734-83-8 REGISTRY
CN RNA (dengue virus 2 strain 131 polyprotein gene plus flanks) (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 155: PN: WO2004092412 FIGURE: 3 claimed DNA
CN GenBank AF100469
SQL 10674
MF Unspecified
CI MAN

REFERENCE 1: 141:389790

REFERENCE 2: 131:113448

L5 ANSWER 34 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
RN 225734-82-7 REGISTRY
CN RNA (dengue virus 2 strain IQT2913 polyprotein gene plus flanks) (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 154: PN: WO2004092412 FIGURE: 3 claimed DNA
CN GenBank AF100468
SQL 10674
MF Unspecified
CI MAN

REFERENCE 1: 141:389790

REFERENCE 2: 131:113448

L5 ANSWER 35 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
RN 225734-81-6 REGISTRY
CN RNA (dengue virus 2 strain IQT1797 polyprotein gene plus flanks) (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 153: PN: WO2004092412 FIGURE: 3 claimed DNA
CN GenBank AF100467
SQL 10674
MF Unspecified
CI MAN

REFERENCE 1: 141:389790

REFERENCE 2: 131:113448

L5 ANSWER 36 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
RN 225734-79-2 REGISTRY
CN RNA (dengue virus 2 strain C0167 polyprotein gene plus flanks) (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 150: PN: WO2004092412 FIGURE: 3 claimed DNA
CN GenBank AF100464
SQL 10685
MF Unspecified
CI MAN

REFERENCE 1: 141:389790

REFERENCE 2: 131:113448

L5 ANSWER 37 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN

RN 225734-78-1 REGISTRY

CN RNA (dengue virus 2 strain C0166 polyprotein gene plus flanks) (9CI) (CA
INDEX NAME)

OTHER NAMES:

CN 149: PN: WO2004092412 FIGURE: 3 claimed DNA
CN GenBank AF100463
SQL 10685
MF Unspecified
CI MAN

REFERENCE 1: 141:389790

REFERENCE 2: 131:113448

L5 ANSWER 38 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN

RN 225734-77-0 REGISTRY

CN RNA (dengue virus 2 strain C0390 polyprotein gene plus flanks) (9CI) (CA
INDEX NAME)

OTHER NAMES:

CN 148: PN: WO2004092412 FIGURE: 3 claimed DNA
CN GenBank AF100462
SQL 10684
MF Unspecified
CI MAN

REFERENCE 1: 141:389790

REFERENCE 2: 131:113448

L5 ANSWER 39 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN

RN 225734-76-9 REGISTRY

CN RNA (dengue virus 2 strain C0371 polyprotein gene plus flanks) (9CI) (CA
INDEX NAME)

OTHER NAMES:

CN 147: PN: WO2004092412 FIGURE: 3 claimed DNA
CN GenBank AF100461
SQL 10685
MF Unspecified
CI MAN

REFERENCE 1: 141:389790

REFERENCE 2: 131:113448

10/085944

L5 ANSWER 40 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
RN 225734-75-8 REGISTRY
CN RNA (dengue virus 2 strain K0010 polyprotein gene plus flanks) (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 146: PN: WO2004092412 FIGURE: 3 claimed DNA
CN GenBank AF100460
SQL 10685
MF Unspecified
CI MAN

REFERENCE 1: 141:389790

REFERENCE 2: 131:113448

L5 ANSWER 41 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
RN 225734-74-7 REGISTRY
CN RNA (dengue virus 2 strain K0008 polyprotein gene plus flanks) (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 145: PN: WO2004092412 FIGURE: 3 claimed DNA
CN GenBank AF100459
SQL 10685
MF Unspecified
CI MAN

REFERENCE 1: 141:389790

REFERENCE 2: 131:113448

L5 ANSWER 42 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
RN 225438-49-3 REGISTRY
CN RNA (Dengue virus 2 strain D2-04) (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 156: PN: WO2004092412 FIGURE: 3 claimed DNA
CN GenBank AF119661
CN RNA (Dengue virus type 2 isolate China 04 polyprotein gene plus flanks)
SQL 10723
MF Unspecified
CI MAN

REFERENCE 1: 141:389790

REFERENCE 2: 138:50522

REFERENCE 3: 135:41632

L5 ANSWER 43 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
RN 220602-29-9 REGISTRY
CN RNA (dengue virus 2 strain PR159/S1 clone pMttD2prM2X80E polyprotein gene 5'-fragment) (9CI) (CA INDEX NAME)

SQL 3380
MF Unspecified
CI MAN

REFERENCE 1: 130:181470

L5 ANSWER 44 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
RN 204661-14-3 REGISTRY
CN RNA (dengue virus 2 clone ThNH-p36/93) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 134: PN: WO2004092412 FIGURE: 3 claimed DNA
CN GenBank AF022441
SQL 10723
MF Unspecified
CI MAN

REFERENCE 1: 141:389790

REFERENCE 2: 129:91159

L5 ANSWER 45 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
RN 204661-13-2 REGISTRY
CN RNA (dengue virus 2 clone ThNH-p16/93) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 133: PN: WO2004092412 FIGURE: 3 claimed DNA
CN GenBank AF022440
SQL 10723
MF Unspecified
CI MAN

REFERENCE 1: 141:389790

REFERENCE 2: 129:91159

L5 ANSWER 46 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
RN 204661-12-1 REGISTRY
CN RNA (dengue virus 2 clone ThNH-p14/93) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 132: PN: WO2004092412 FIGURE: 3 claimed DNA
CN GenBank AF022439
SQL 10723
MF Unspecified
CI MAN

REFERENCE 1: 141:389790

REFERENCE 2: 129:91159

L5 ANSWER 47 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
RN 204661-11-0 REGISTRY
CN RNA (dengue virus 2 clone ThNH-p12/93) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 131: PN: WO2004092412 FIGURE: 3 claimed DNA
CN GenBank AF022438
SQL 10723
MF Unspecified
CI MAN

REFERENCE 1: 141:389790

REFERENCE 2: 129:91159

L5 ANSWER 48 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
 RN 204661-10-9 REGISTRY
 CN RNA (dengue virus 2 clone ThNH-p11/93) (9CI) (CA INDEX NAME)
 OTHER NAMES:
 CN 130: PN: WO2004092412 FIGURE: 3 claimed DNA
 CN GenBank AF022437
 SQL 10723
 MF Unspecified
 CI MAN

REFERENCE 1: 141:389790

REFERENCE 2: 129:91159

L5 ANSWER 49 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
 RN 204661-09-6 REGISTRY
 CN RNA (dengue virus 2 clone ThNH-52/93) (9CI) (CA INDEX NAME)
 OTHER NAMES:
 CN 129: PN: WO2004092412 FIGURE: 3 claimed DNA
 CN GenBank AF022436
 SQL 10723
 MF Unspecified
 CI MAN

REFERENCE 1: 141:389790

REFERENCE 2: 129:91159

L5 ANSWER 50 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
 RN 204661-08-5 REGISTRY
 CN RNA (dengue virus 2 clone ThNH-28/93) (9CI) (CA INDEX NAME)
 OTHER NAMES:
 CN 128: PN: WO2004092412 FIGURE: 3 claimed DNA
 CN GenBank AF022435
 SQL 10723
 MF Unspecified
 CI MAN

REFERENCE 1: 141:389790

REFERENCE 2: 129:91159

L5 ANSWER 51 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
 RN 204661-07-4 REGISTRY
 CN RNA (dengue virus 2 clone ThNH-7/93) (9CI) (CA INDEX NAME)
 OTHER NAMES:
 CN 127: PN: WO2004092412 FIGURE: 3 claimed DNA
 CN GenBank AF022434
 SQL 10724
 MF Unspecified
 CI MAN

REFERENCE 1: 141:389790

REFERENCE 2: 129:91159

L5 ANSWER 52 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
 RN 201718-02-7 REGISTRY
 CN RNA (dengue virus 2 strain New-Guinea-C clone pDVWS501) (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 136: PN: WO2004092412 FIGURE: 3 claimed DNA
 CN 1: PN: WO02095075 PAGE: 5 unclaimed DNA
 CN 5: PN: WO2004040263 FIGURE: 40 unclaimed DNA
 CN GenBank AF038403
 SQL 10724
 MF Unspecified
 CI MAN

REFERENCE 1: 141:389790

REFERENCE 2: 140:402866

REFERENCE 3: 138:2186

REFERENCE 4: 128:279404

L5 ANSWER 53 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
 RN 201718-01-6 REGISTRY
 CN RNA (dengue virus 2 strain New-Guinea-C/PUO-218 clone pDVWS310) (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 135: PN: WO2004092412 FIGURE: 3 claimed DNA
 CN GenBank AF038402
 SQL 10724
 MF Unspecified
 CI MAN

REFERENCE 1: 141:389790

REFERENCE 2: 128:279404

L5 ANSWER 54 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
 RN 140994-01-0 REGISTRY
 CN RNA (dengue virus 2 strain 16681) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Ribonucleic acid (dengue virus 2 strain 16681)

OTHER NAMES:

CN 195: PN: WO2004092412 FIGURE: 3 claimed DNA
 CN GenBank M84727
 CN GenBank M85258 (Secondary GenBank Accession Number)
 CN GenBank M85259 (Secondary GenBank Accession Number)
 SQL 10723
 MF Unspecified
 CI MAN

REFERENCE 1: 141:389790

REFERENCE 2: 119:87610

L5 ANSWER 55 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN

10/085944

RN 140993-81-3 REGISTRY
CN RNA (dengue virus 2 strain 16681-PDK53) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Ribonucleic acid (dengue virus 2 strain 16681-PDK53)
OTHER NAMES:
CN 196: PN: WO2004092412 FIGURE: 3 claimed DNA
CN GenBank M84728
CN GenBank M85258 (Secondary GenBank Accession Number)
SQL 10723
MF Unspecified
CI MAN

REFERENCE 1: 141:389790

REFERENCE 2: 119:87610

L5 ANSWER 56 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
RN 140975-01-5 REGISTRY
CN GenBank M14931 (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 213: PN: WO2004092412 FIGURE: 3 claimed DNA
CN GenBank M17255 (Secondary GenBank Accession Number)
SQL 10648
MF Unspecified
CI MAN

REFERENCE 1: 141:389790

L5 ANSWER 57 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
RN 140975-00-4 REGISTRY
CN GenBank M19197 (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 192: PN: WO2004092412 FIGURE: 3 claimed DNA
CN 7: PN: WO03059384 PAGE: 19 unclaimed DNA
SQL 10703
MF Unspecified
CI MAN

REFERENCE 1: 141:389790

REFERENCE 2: 139:116271

L5 ANSWER 58 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
RN 140974-99-8 REGISTRY
CN RNA (dengue 2 virus clone P93-VD1) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Ribonucleic acid (dengue 2 virus clone P93-VD1)
OTHER NAMES:
CN 193: PN: WO2004092412 FIGURE: 3 claimed DNA
CN GenBank M20558
SQL 10723
MF Unspecified
CI MAN

REFERENCE 1: 141:389790

REFERENCE 2: 124:195375

L5 ANSWER 59 OF 59 REGISTRY COPYRIGHT 2005 ACS on STN
 RN 140974-98-7 REGISTRY
 CN GenBank M29095 (9CI) (CA INDEX NAME)
 OTHER NAMES:
 CN 194: PN: WO2004092412 FIGURE: 3 claimed DNA
 CN 4: PN: WO03092592 PAGE: 56 unclaimed DNA
 CN GenBank M19727 (Secondary GenBank Accession Number)
 SQL 10723
 MF Unspecified
 CI MAN

REFERENCE 1: 141:389790

REFERENCE 2: 141:223993

REFERENCE 3: 139:379993

(FILE 'MEDLINE, BIOSIS, EMBASE' ENTERED AT 12:07:12 ON 21 JAN 2005)

L6 3 S L5
 L7 3 DUP REM L6 (0 DUPLICATES REMOVED)

L7 ANSWER 1 OF 3 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation. on STN
 ACCESSION NUMBER: 2002:204743 BIOSIS
 DOCUMENT NUMBER: PREV200200204743
 TITLE: Surface expression of an immunodominant malaria protein B cell epitope by yellow fever virus.
 AUTHOR(S): Bonaldo, Myrna C.; Garratt, Richard C.; Caufour, Philippe S.; Freire, Marcos S.; Rodrigues, Mauricio M.; Nussenzweig, Ruth S.; Galler, Ricardo [Reprint author]
 CORPORATE SOURCE: Departamento de Bioquimica e Biologia Molecular, Fundacao Oswaldo Cruz Instituto Oswaldo Cruz, Rio de Janeiro, RJ, 21045-900, Brazil
 rgaller@gene.dbbm.fiocruz.br
 SOURCE: Journal of Molecular Biology, (25 January, 2002) Vol. 315, No. 4, pp. 873-885. print.
 CODEN: JMOBAK. ISSN: 0022-2836.
 DOCUMENT TYPE: Article
 LANGUAGE: English
 OTHER SOURCE: Genbank-M18370; Genbank-M19197; Genbank-U17066; Genbank-U27495
 ENTRY DATE: Entered STN: 20 Mar 2002
 Last Updated on STN: 10 May 2002

AB The yellow fever 17D virus (YF17D) has several characteristics that are desirable for the development of new, live attenuated vaccines. We approached its development as a vector for heterologous antigens by studying the expression of a humoral epitope at the surface of the E protein based on the results of modelling its three-dimensional structure. This model indicated that the most promising insertion site is between beta-strands f and g, a site that is exposed at the external surface of the virus. The large deletion of six residues from the fg loop of the E protein from yellow fever virus, compared to tick-born encephalitis virus, leaves space at the dimer interface for a large insertion without creating steric hindrance. We have tested this hypothesis by inserting a model humoral epitope from the circumsporozoite protein of Plasmodium falciparum

consisting of triple NANP repeats. Recombinant virus (17D/8) expressing this insertion flanked by two glycine residues at each end, is specifically neutralized by a monoclonal antibody to the model epitope. Furthermore, mouse antibodies raised to the recombinant virus recognize the parasite protein in an ELISA assay. Serial passage analysis confirmed the genetic stability of the insertion made in the viral genome and the resulting 17D/8 virus is significantly more attenuated in mouse neurovirulence tests than the 17DD vaccine. The fg loop belongs to the dimerization domain of the E protein and lies at the interface between monomers. This domain undergoes a low pH transition, which is related to the fusion of the viral envelope to the endosome membrane. It is conceivable that a slower rate of fusion, resulting from the insertion close to the dimer interface, may delay the onset of virus production and thereby lead to a milder infection of the host. This would account for the more attenuated phenotype of the recombinant virus in the mouse model and lower extent of replication in cultured cells. The vectorial capacity of the yellow fever virus is being further explored for the expression and presentation of other epitopes, including those mediating T-cell responses.

L7 ANSWER 2 OF 3 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation. on STN
 ACCESSION NUMBER: 2001:534512 BIOSIS
 DOCUMENT NUMBER: PREV200100534512
 TITLE: Chemical mutagenesis of dengue virus type 4 yields mutant viruses which are temperature sensitive in Vero cells or human liver cells and attenuated in mice.
 AUTHOR(S): Blaney, Joseph E., Jr. [Reprint author]; Johnson, Daniel H.; Firestone, Cai-Yen; Hanson, Christopher T.; Murphy, Brian R.; Whitehead, Stephen S.
 CORPORATE SOURCE: LID, NIAID, NIH, 7 Center Dr., Bldg. 7, Room 100, MSC 0720, Bethesda, MD, 20892, USA
 jblaney@niaid.nih.gov
 SOURCE: Journal of Virology, (October, 2001) Vol. 75, No. 20, pp. 9731-9740. print.
 CODEN: JOVIAM. ISSN: 0022-538X.
 DOCUMENT TYPE: Article
 LANGUAGE: English
 OTHER SOURCE: Genbank-AF375822
 ENTRY DATE: Entered STN: 14 Nov 2001
 Last Updated on STN: 25 Feb 2002

AB A recombinant live attenuated dengue virus type 4 (DEN4) vaccine candidate, 2ADELTA30, was found previously to be generally well tolerated in humans, but a rash and an elevation of liver enzymes in the serum occurred in some vaccinees. 2ADELTA30, a non-temperature-sensitive (non-ts) virus, contains a 30-nucleotide deletion (DELTA30) in the 3' untranslated region (UTR) of the viral genome. In the present study, chemical mutagenesis of DEN4 was utilized to generate attenuating mutations which may be useful in further attenuation of the 2ADELTA30 candidate vaccine. Wild-type DEN4 2A virus was grown in Vero cells in the presence of 5-fluorouracil, and a panel of 1,248 clones were isolated. Twenty ts mutant viruses were identified that were ts in both simian Vero and human liver HuH-7 cells (n = 13) or only in HuH-7 cells (n = 7). Each of the 20 ts mutant viruses possessed an attenuation phenotype, as indicated by restricted replication in the brains of 7-day-old mice. The complete nucleotide sequence of the 20 ts mutant viruses identified nucleotide substitutions in structural and nonstructural genes as well as

in the 5' and 3' UTRs, with more than one change occurring, in general, per mutant virus. A ts mutation in the NS3 protein (nucleotide position 4995) was introduced into a recombinant DEN4 virus possessing the DELTA30 deletion, thereby creating rDEN4DELTA30-4995, a recombinant virus which is ts and more attenuated than rDEN4DELTA30 virus in the brains of mice. We are assembling a menu of attenuating mutations that should be useful in generating satisfactorily attenuated recombinant dengue vaccine viruses and in increasing our understanding of the pathogenesis of dengue virus.

L7 ANSWER 3 OF 3 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation. on STN
 ACCESSION NUMBER: 2000:314116 BIOSIS
 DOCUMENT NUMBER: PREV200000314116
 TITLE: Complete sequence analysis of the entire genome of the
 Dengue type 2 virus 04 strain isolated in China.
 AUTHOR(S): Yang Jing [Reprint author]; Yang Peiying; Qin Ede
 CORPORATE SOURCE: Institute of Microbiology and Epidemiology, AMMS, Beijing,
 China
 SOURCE: Zhonghua Weishengwuxue He Mianyixue Zazhi, (May, 2000) Vol.
 20, No. 3, pp. 204-209. print.
 CODEN: ZWMZDP. ISSN: 0254-5101.
 DOCUMENT TYPE: Article
 LANGUAGE: Chinese
 OTHER SOURCE: Genbank-AF119661
 ENTRY DATE: Entered STN: 26 Jul 2000
 Last Updated on STN: 7 Jan 2002

AB Objective: To sequence the entire genome of Dengue 2 virus 04 (D2-04) strain, provide direct information about the genomic structure and its possible relationships to the biological functions, and aid in the development of new Dengue vaccines. Methods: Thirteen pairs of primers were designed according to the sequence of Dengue 2 virus prototype strain NGC. Using RT-PCR, cDNA fragments of D2-04 strain were acquired from infected C6/36 cells. The cDNA fragments were cloned into the vector pGEM-T and then transformed to competent DH5alpha cells. Positive clones were screened and amplified by PCR, and then the products were determined by enzyme digestion. The sequences of inserted fragment were determined by PRISM™ ABI 377 automated sequencer. Results: Sequence analysis showed that the entire genome of D2-04 strain consisted of 10 723 nucleotides(nt) and contained a single open reading frame(ORF) of 10 173 nt which encoded a polyprotein of 3 391 amino acids(aa). The nucleotide sequence and the deduced amino acid sequence of D2-04 strain were compared with those of other Dengue 2 virus strains such as NGC, JAM, PR159(S1), 16681 and its attenuated vaccine derivative PDK-53. The results revealed that the homology of nucleotide sequences among the five strains was 95.0%, 97.6%, 89.8%, 93.8% and 93.7%, respectively, and the similarity of their amino acid sequences was 97.8%, 98.6%, 96.7%, 97.6% and 97.5%, respectively. The genomic organization of D2-04 strain was similar to that of other reported Dengue 2 virus strains. The amino acid sequence of D2-04 strain polypeptide revealed 28 cysteine residues conserved within the Dengue 2 virus, as well as 7 potential glycosylation sites at Asn-69 of PrM protein; Asn-67 and Asn-153 of E protein; Asn-130, Asn-207, Asn-359 and Asn-399 of NSI protein. Conclusions: Among the five Dengue 2 virus strains D2-04 strain is more similar to JAM (97.6% similarity) than NGC, and it is less similar to S1. Comparative data reveal that D2-04 strain appears to be closely related to JAM strain and they may belong to the same topotype. The sequence analysis of D2-04 strain would aid in understanding the origin of Dengue virus and developing Dengue vaccine in

10/085944

China.

FILE 'HOME' ENTERED AT 12:07:30 ON 21 JAN 2005